SATURDAY, MARCH 28, 1874.

ORIGINAL COMMUNICATIONS.

THE SUPPLY OF NERVES TO THE SKIN.

BY S. WEIR MITCHELL, M.D.

I PUBLISHED in the *Times* of December 6, 1873, a brief sketch of my opinion in regard to neurotomy, and as to certain questions which are related to nerve-sections. The views of this paper were criticised by Dr. H. C. Chapman, in the *Times* for January 24, 1874, and grave fault was found with my anatomical facts. Had my knowledge of anatomy been the only point concerned, I should have made no reply; but if Dr. Chapman's confident defence of the Anatomies be accepted, it will lead to the belief that we possess, in ample amount, a certain kind of knowledge which, in reality, we have not, and this I regard as of moment, and as making an answer necessary.

In the paper above mentioned, I stated that surface-nerve anatomy, as taught in the books,*—and I except none that are known to me,—is a fiction. If I had said there is, as yet, no definite and precise surface-anatomy, it would have been a more sweeping statement, and yet would have been correct. Dr. Chapman thinks mine an extraordinary assertion, and "will try to show that, so far from surface-anatomy being a fiction, not only in its general features but in detail it has been made out correctly for years." Then follows a long and clearly-written account of the general distribution of nerve-branches in the fingers.

Nothing beyond a careful reading of this could be needed, by a thoughtful reader of my own paper, to prove from what different points of view Dr. Chapman and I are looking at the subject of surface-nerve anatomy. He is content with a description which tells us that this nerve-filament supplies the *side* of this finger and these anastomosing filaments feed adjacent *borders* of these two fingers, or the *ends* of such-and-such fingers are supplied by branches of median and ulnar nerves, etc. In Dr. Chapman's surface-nerve anatomy it is rather curious that the word *skin* is not once used, nor is any analogue employed. The nerves feed the *ends* and the *sides* of fingers, etc. Now, this is not *surface*-nerve anatomy as I wish to see it made out, nor could any one dream from his drawing that the skin-distribution is other than symmetrical, nor from his description, written with intent to show how well surface-nerve supply is understood, could it be suspected what precise areas of skin are supplied by certain nerves, or even that the skin is supplied at all. It is, nevertheless, pretty sure that as a rule each nerve supplies largely certain rather definite skin-spaces, that it supplies with far fewer filaments other cutaneous areas, while to some it sends so few fibrils as to be in such regions of trifling functional moment. It is not enough to say, for example, that the median supplies branches to the "tip," "to the back," "to the parts beneath the nail of the index-finger." How much of the back of the finger does each nerve innervate? In what proportion do any two nerves concerned feed the same skin-spaces? In other words, if we cut the median, where will pain and touch be lost, and to what amount will they suffer in the various regions fed? Surely, if true surface-neural anatomy be known, there is no need to ask an answer of the clinic and the laboratory. Certainly no anatomical description traces for me the exact skin-spaces in which each digital nerve terminates. The drawings in the books like Dr. Chapman's, or properly, I suppose, my friend Leidy's, mislead us into a notion of symmetrical distribution of the nerve-endings in the skin which does not hold good; and diagrams such as exist in Flower and Henle still further bewilder, and are scarcely more than an approach to the truth. The fact that more than one nerve may be concerned in feeding each portion of skin makes the question of greater moment. If, at certain parts of the skin of the end of the dorsum indicis, an injury exists which it becomes desirable to quarantine by a nerve-section, it is, of course, well to know which of two nerves to cut first, as we might not wish to cut both at once. The exact limit of distribution, the proportional feeding of skin at this part by each nerve, would here be a thing of importance to know; and this no anatomy gives, for this would be surface-nerve anatomy, which is as yet in its infancy. Or, should I seek to learn just how much of the skin of the face will lose the sense of pain and touch after section of the infra-orbital nerve, no anatomy shows this. I ought to add that my own nerve-sections give the spaces in question, and that on the back of the index-finger and of the medius, as I shall elsewhere show, the region of lost pain and touch after section of the median is such as no one could define from any anatomical description or drawing to be found in the books. This brings me to say a few words as to another fact. I said in my paper that the median nerve sometimes *innervates* the thumb, index-finger, and half of the medius, sometimes reaches the whole of the medius, and very often extends over half of the annular. Dr. Chapman is in part right when he blames this statement; but it is a good illustration of the need for a knowledge of proportion in nerve-supply. The facts are valuable, and I shall give them briefly. It will be noted that I say the median innervates; and I said it for this reason, that the subcutaneous nerve-supply seems sometimes to be anatomically large, when really it supplies but little function to the skin,—does, in fact, hardly innervate it. Thus, in France, Létievant has given cases of median section in which the loss of palmar feeling is said to have extended in one to the middle of the median finger, in another to the line between it and the annular, in a third to the middle of the annular. I have seen two median nerve-sections; in both the sense of pain and touch were wholly lost in the face of the thumb, face of the index, and of half of the medius. One I examined no further;

* As Gray, Wilson, Sharpey and Quain, Hyrtl, Leidy, Luschka, Henle, Rüdinger, Hirschfeld and Léveillé, Cruveilhier, Sappey.

the other has full sense of the position of a touch and of the lightest contact beyond this line. Tested by the compass-points there is, however, lessened feeling in the palmar aspect of all the fingers save the little finger, even in the ulnar half of the annular, which is beyond the region usually given to any median supply. In other words, the median supply of innervation was ample in the thumb, index, and half of the medius, but beyond that only capable of measurement by delicate instruments.

Whether these facts be due to variations or to a greater difference in the proportional distributions than seems to show in the books, I cannot yet say. They explain, however, those statements of my last paper with which fault has been found. In a special case mentioned, Dr. Chapman asks further why I should have been astonished at the fact that after section of the radial nerve touch seemed to be nowhere lost. Somehow, this is an astonishment which still clings to me, because in two other cases of radial section, of which I have notes, there was considerable loss of touch-sense, and even, in a quite limited area, of pain-sense. Also, this is what Létievant found in his sections. Therefore, in one case which seems to have been well observed, a cut radial left the dorsal hand-surface in full function. In others the loss of pain and tact existed in a small space on the radial side of the dorsum, while elsewhere, over nearly all of the back of the hand and fingers, touch was lessened. There was, therefore, I think, some cause in my case for my being astonished. Dr. Chapman's reason for feeling no amazement at the continuance of full touch-sense in the dorsum of the hand and fingers arises, as he tells us, from the fact that, supposing the radial were cut, the back of the hand would still be supplied by branches of the "*external and internal cutaneous, dorsalis ulnaris, and the interosseous* nerves." The radial nerve, however, according to every writer, supplies largely the skin of the back of the hand, and it does, therefore, seem strange, unless he attributes the fact to something unusual, that Dr. Chapman should suppose its loss would give rise to no defect of sensation. It will be remembered that in quoting my case I was alluding to the possible occurrence of variations in nerve-supply.

The doctor mentions the interosseous nerve as aiding to make up any lack of feeling in the skin of the dorsum of the hand due to loss of the radial nerve. Of course he refers only to the posterior interosseous; but no authority describes this nerve as affording *any* such skin-supply. It feeds only the wrist-joint,—possibly, according to Knox, some areolar tissue, while Rudinger and others trace fine filaments to the metacarpo-phalangeal joints of the fingers. Unless Dr. Chapman has made new dissections which trace it elsewhere, this nerve must be left out of the case. It is a matter of small moment; but, having been read a lesson on anatomy, it is pleasant to be able in turn to afford some instruction to so able and minute a critic.

Again, I said that after section of all the cords of the plexus save the external, the palm and dorsal surface of the hand, fore-arm and arm, and the inner face of the arm, retained tactile feeling. I said that this surprised me. My critical friend does not see why, "because," he says, "the external cord forms part of the median and the external cutaneous, the very nerves supplying the parts which retained the touch-sense." "Indeed," he adds, "I should have been surprised had it been otherwise." Therefore, according to Dr. Chapman, the external cutaneous and a part of the median ought to be enough, without the ulnar,* radial, part of the median, musculo-spiral, internal cutaneous, and lesser internal cutaneous nerves, to give such touch-sense in the parts named as to cause no surprise to a reasonably trained observer. Of course, for the fact in question there is some explanation, but it singularly impressed me and others at the time; and not so much because of there being some touch, but because the man gave the locality of the touch alertly, and seemed to feel so very light an impact.

I must be pardoned yet one reply. I stated, in a guarded mode, that cold, pressure, or galvanism may help us, in cases of doubt, to discover the presence of variations of nerve-supply. It would have been difficult to state in a more careful way the merely possible value of a proposed new means of inquiry. Dr. Chapman, however, thinks that any result based on such a mode of experimentation would be very unreliable, because of the free anastomoses of nerves. What Dr. Chapman means by the anastomoses of nerves he does not say. If he means merely the constant gross interchange of fibres which is so common, his criticism is valueless, because such anastomoses are purely anatomical, and so a paralyzing impression made, for example, on the ulnar nerve at the elbow will simply affect the definite peripheral area supplied by the nerve-fibres present in this nerve at the elbow. There is, as yet, no certainty as to the existence of true nervous anastomoses in the extremities; that is, of nerve-tubules directly communicating and transmitting impressions from nerve to nerve; nor, if we had the knowledge of such anastomoses, would we be as yet justified in assuming for them an exact physiological value. The chiasms of the laryngeal nerves in some animals seem to have no physiological uses, and the nerve-filaments which cross the median line of the body in the frog appear to possess power to transmit impressions; and so the most intimate terminal relations of nerve-filaments do not in our present state of knowledge permit us to feel sure that they are the means of carrying impressions from the territory of one nerve into that of another. I am unable, therefore, to see what was meant by this criticism.

Then I am told that the pain which attends such experiments vitiates them, because it is an abnormal condition; but pain, in its milder forms at least, a

* The external cord of the plexus gives off the musculo-cutaneous nerve, and about one-half of the median; whether or not it helps to make up the ulnar, must probably remain undecided during life in any individual. In Cruveilhier and in Hirschfeld and Léveillé the diagrams represent the ulnar as receiving a branch from the external cord; but, although Leidy so describes it, neither of the other two anatomies recognizes this origin in its text, which seems strange enough. Henle recognizes the origin from the external cord as sometimes found. A recent study in this city of the variations of the plexus in thirty subjects, by Mr. Walsh, student of medicine, resulted in finding no one instance of partial origin of the ulnar from the external cord. Mr. Walsh has kindly put in my hands a résumé of his results; but, as he will publish the full study of over one hundred cases, I refrain from further quotation.

physiologist should know, is hardly to be called abnormal,—is, in truth, as distinctly a function as is touch; but in fact I said of my three proposed methods that one of them—freezing—was "very painful;" that pressure, the second, "was not painless;" and as to the third, electricity, I spoke of currents of "moderate intensity," of "mild currents;" and where is this pain, which is supposed to vitiate a method which the critic seems never to have tested, and which, whether good or worthless, is certainly not open to his forms of objection?

One word to close. The anatomies teach thoroughly sub-surface nerve-distribution. No anatomy gives the true areas of nerve-supply to the skin; not one gives the proportions of this supply.

At the best we are told that the skin of the end of the dorsum of a finger is fed by this nerve or that, the skin of the face of this finger by one nerve, that of its side by another. No book delineates the limits of distribution, and whatever attempts have been made in the anatomies to describe the true surface-supplies are shown to be false by clinical experience. This cutaneous-nerve anatomy is to be made anew, and we want to see in the books tinted maps giving the limits and proportional distribution of nerves to the skin. With novel methods and a fuller knowledge of what is known and what is not, but especially with the help of clinical nerve-sections, we shall soon come to understand correctly how much of the skin each great nerve supplies, and, on the other hand, how much of each nerve goes to effect this object in particular areas of skin. Accurate nerve-supply to the skin, and its proportions—this is what we want. Until we get such knowledge, I shall still be forced to believe that our present surface-nerve anatomy is a fiction.

DISLOCATIONS OF THE HIP—SCIATIC VARIETY.

BY OSCAR H. ALLIS, MD.,

One of the Surgeons to the Presbyterian Hospital.

SIR ASTLEY COOPER considered sciatic dislocations the most difficult to detect, and Syme has unwittingly confirmed this opinion, by once failing to recognize the injury and leaving it unrestored for fourteen days. If further evidence is required of the difficulty of diagnosis, I will refer to the following cases, two of which passed beyond the power of remedy before the true nature of the injury was detected.

Case I.—J. K., æt. 61, was brought into the Presbyterian Hospital in July, 1873. History of the case: During the night of the Friday preceding his admission he walked in his sleep from the second-story window. In his descent he struck a clothes-line, which broke, and in a measure changed the direction of his fall; but as the accident occurred in the night, and during sleep, it was impossible to gain fuller particulars.

I first saw him lying on his bed; the right thigh was flexed on the pelvis, and stood awkwardly off from the body. On assisting him to assume the erect posture, I noticed that the toe of the right foot could with difficulty be brought to the floor; that the heel was drawn up; that the ham-string tendons were rigid and prominent; that the leg was flexed on the thigh, and the thigh on the pelvis; that the knee was turned inward towards its fellow; that the gluteal region was flattened and apparently widened; that the spinal column was arched forward in its lumbar region, and that the trunk and extremity had assumed an awkward, constrained, and helpless position.

Upon the administration of ether the limb was brought down by its fellow, and a shortening of half an inch observed.

The reduction was accomplished in the following manner: The man was placed on the floor; then an assistant held the pelvis, while two others, by means of a fillet placed above the knee,—the force being exerted at right angles to the plane of the body,—lifted the head of the bone to a level with the acetabulum. This being done, I was enabled, by grasping the ankle with one hand and the knee with the other, to convey the dislocated bone into its proper place, though with a scarcely audible sound.

There was some difficulty experienced in dislodging the bone from its new position, and the instant it took place crepitus was distinctly recognized by all present.

The patient, after reduction, was placed in bed with the usual restraints; but, as lying in bed was irksome to him, he arose from it in about a week, and, experiencing no difficulty in walking, did not return to it by day, and was soon discharged at his request from the hospital.

Case II.—Mrs. G., æt. 64. Fell on going into the yard down a flight of six steps. She thinks she received the force of the fall in the middle of the thigh posteriorly.

As she was rendered helpless by the fall, the family physician was sent for, *who, on learning the nature of the accident, and fearing, from the age of the patient, a fracture, administered ether, gave her a careful examination, and, as neither deformity, crepitus, nor restricted motion was present, left, satisfied that it was only a contusion.*

Five months later—the patient in the mean time being helpless on account of the great suffering in the part—I saw the case. There were present the following symptoms: Shortening of about half an inch; the limb lay parallel with its fellow, with the toes looking upward; the limb, especially below the knee, was œdematous. The knee was stiff (false anchylosis). The gluteal region was flattened and apparently widened. The gluteo-femoral creases of the two limbs did not correspond as they do in the normal condition, and the great trochanter could be distinctly felt in its new position. There was great pain in the limb, constant, and aggravated by changes in the weather, and referred to a point in the course of the great sacro-sciatic nerve, about six inches above the popliteal space, and due, probably, to the head of the bone resting on and compressing the nerve at its exit from the pelvis.

The patient was again brought under the influence of ether, as every motion of the limb was painful, and the diagnosis of sciatic dislocation was established. There seemed to have been no adhesions, or at least no difficulty in breaking them up, and during manipulation and traction the head was distinctly recognized to jump suddenly from its new bed. This feeling we all experienced two or three times under the repeated efforts* made to restore it, but our exertions were fruitless.

Case III.—Mrs. R., æt. 57, fell to the sidewalk on a slippery evening in February, 1872. She fell upon her left thigh, but by some means the injury sustained was in the right. As she was unable to rise, two policemen

* Our efforts were with a view to dislodge the head of the bone and form a new home for it if it could not be restored. We failed in both.

came to her assistance, and one of them stooping to help her fell across her outstretched right limb, and it is more than likely that to the second accident is her present condition traceable.

On being conveyed to a friend's, a physician was summoned, who examined her *lying on a feather bed*, and with *all her clothing on*, and pronounced "no bones broken." Not satisfied with his opinion, another physician was summoned the following day, who, after a careful examination, said that the injury would not "signify," and clapped on a large fly-blister!!

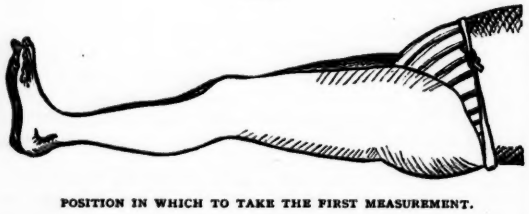
I will not repeat the needless, superadded suffering of the poor woman from a mistaken diagnosis.

As soon as the limb had recovered from the shock—*i.e.*, within a few days—she had rotation, and found the easiest position for it to be *semi-flexion*. She sat up in a few weeks, and left her bed in four; though from the receipt of the injury to the present time she has been unable to walk without crutches. Pain has been a constant, persistent feature from the first.

Present condition (the patient standing before me).—There is marked flattening of the gluteal region. The spinal column *is not* unusually arched forward. The limb has a natural, easy position, with three-fourths of an inch shortening. She can place the foot as flatly on the floor as she ever could, and can stamp and kick out with it with considerable force. The measurement around the pelvis on a level with the pubes shows that the injured hip is less prominent by one inch and a half. The head of the bone has not formed adhesions in its new home, and can be moved as freely as the sound one. The great trochanter is one inch farther from *the pubic symphysis* than its fellow; and a resort to the following device establishes the nature of the injury.

In the cases above described will be found the symptoms that characterize *recent* or *chronic* sciatic dislocations: hence a summary of them will not be given. To arrive at a correct diagnosis in all severe injuries of the hip is a matter of the greatest importance, and to aid in this I would suggest the following simple but effective plan.

FIG. 1.



POSITION IN WHICH TO TAKE THE FIRST MEASUREMENT.

Place the person on a hard mattress, or, *better*, the floor, and notice the amount of shortening, if any, with the limbs in a line with the body. If it be sciatic dislocation it will not exceed three-fourths of an inch; there may be none.

Next compare the limbs at right angles to the trunk (Fig. 2), and if it be a sciatic dislocation there will be a difference of at least *one inch and a half; but if the measurements in both positions are the same, there cannot by any possibility be a sciatic dislocation.*

To understand the philosophy of this plan it may be of importance to examine a pelvis (Fig. 3), placing it in the position of a person lying on his back. The great sacro-sciatic notch now lies *an inch and a half* almost directly below the acetabulum, so that it is quite possible (Case II.) for the head to lie in it, especially immediately after dislocation, and exhibit no shortening by the usual mode of measurement.

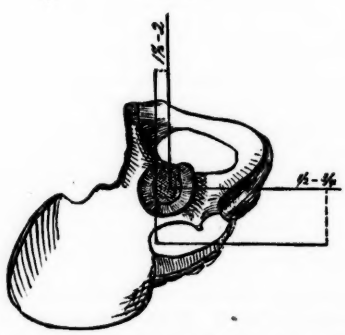
FIG. 2.

POSITION IN WHICH TO TAKE THE SECOND MEASUREMENT.

But the instant the femurs are compared at right angles to the plane of the trunk,—as indicated by the perpendicular lines,—a marked difference is at once effected.

Now, there is a principle involved in this of great practical importance. It bears upon every variety of obscure injury at the hip, whether it be dislocation, impacted fracture, or severe contusion. The principle is this. While the heads of the femurs lie in their respective acetabula, corresponding measurements in every position will not vary. If one thigh is half an inch shorter than its fellow (as may be possible in impacted fracture) the same difference will persist in flexion, extension, abduction, or adduction.

FIG. 3.



But not so in dislocation. Here the head of the bone is fixed at a point that does not correspond to the acetabulum, and in every new position in which the limbs may be compared a different result may be expected.

A correct diagnosis in injuries of the hip is of the utmost importance to all concerned. Simple injuries, as a fall upon the great trochanter, are often most disastrous, and are frequently followed by years of suffering and helplessness; and it is certainly the part of prudence, not to mention humanity, to make repeated careful examinations and under the most favorable circumstances, and thus, before it is too late, rectify any mistake that must otherwise be followed by a lifetime of suffering.

To Drs. Truman and Yocum, and Mr. Charles Neill, I am indebted for valuable assistance in the first case recorded.

DESCRIPTION OF SPECIMENS FROM DR. LEVIS'S CASE OF ANEURISM OF THE SUBCLAVIAN ARTERY TREATED BY THE INTRODUCTION OF HORSE-HAIRS.

BY MORRIS LONGSTRETH, M.D.,

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Read before the Pathological Society of Philadelphia.

JAMES M., æt. 47, was admitted to the Pennsylvania Hospital with a large aneurism of the right subclavian artery. It had been recognized only three weeks previously, although he had had pain in the right chest and arm for nine months. A pulsating tumor with distinct aneurismal thrill was seen jutting above the clavicle, and below that bone another swelling was felt, in which the thrill was almost absent. Horse-hair was introduced through a fine needle canula; no difficulty was experienced in its introduction, and twenty-four feet nine inches of it were safely stowed away in the aneurism. The tumor became hard, and pulsation in it and in the radial ceased. No local irritation occurred in or about the swelling after the operation, nor any inconvenience from the arrest of the circulation.

The patient died November 16, 1873, with symptoms of engorgement and pressure on the upper lobe of the right lung. The expectorated mucus was darkly colored with blood.

The autopsy was made some hours after death. There was some œdema of the axillary and pectoral regions, as well as of the right arm.

On the removal of the pectoral muscle, the whole region around into the axilla and under the scapula was fluctuating.

On opening the thorax, the upper lobe of the right lung was found solid, of a dark-red color, and pressing close up to the mediastinum. The margins of this lobe, however, were still crepitant and of their normal color.

The lower lobe was collapsed.

The right pleural cavity contained a small amount of blood-stained serum, but there were no evidences of inflammation.

The aneurism commenced in the second portion of the subclavian artery, at an inch and three-quarters from the bifurcation of the innominate. The wall of the vessel had given way upwards and downwards.

The upper dilatation was about an inch and a half in diameter, and reached above the clavicle, partially covered by the fibres of the scalenus anticus muscle. It contained a dense white clot.

The opening on the lower wall of the vessel was oval-shaped, about an inch in its greater diameter. The margins of this opening were smooth and quite regular.

On dividing the upper lobe of the right lung, there was found a mass of black clotted blood behind it and extending beyond the line of the ribs, especially in the axillary region immediately below the clavicle, nearly two inches. In the upper portion of this soft clot a dense white clot was found attached around the lower aneurismal opening in the subclavian.

In the posterior part of the fibrinous clot were found the horse-hairs.

The lung appeared to have been pressed forward and inward by the increasing mass of blood behind it. Its vessels and the bronchial tubes had been occluded by its condensation. The lung-tissue in contact with the clotted blood resembled the condition of a lung in hydrothorax.

It was found that the first and second ribs had almost entirely disappeared; from the third to the fifth the ribs had been stripped of their periosteum; on the inner surface of the sixth rib the process of stripping was seen going on, the pleura and periosteum were slit for about an inch, and the blood had forced its way underneath them and almost surrounded the bone for this distance. The third, fourth, and fifth ribs maintained their normal position, but the blood extended through the costal interspaces, so that the clot in the thorax communicated with the fluctuating mass found beneath the pectoral muscles. Hence it will be seen that the fluctuating tumor in the axilla was covered with the dense fibrous tissues of the pleura, intercostal muscles, and costal periosteum, which had been pressed outward by the blood accumulating in the thoracic cavity. The intercostal vessels were found lacerated.

An experiment was made to determine whether or not the blood-current in the subclavian communicated with the black clot found in the thoracic cavity, but it was found that water poured into the aneurismal dilatation of the vessel was perfectly retained, none escaping into the thoracic cavity. On very careful dissection, this fact was proved, for it was found that the mass of fibrinous clot in the dilatation varied from a half-inch to two inches in thickness on the circumference.

Diligent search was made for coats of the dilated vessels, but it was impossible to trace them beyond half an inch from the margin of the opening. The cavity in the fibrinous clot was about two inches and a half in diameter, extending downwards and outwards from the opening in the vessel, having the horse-hairs imbedded in its posterior walls. In the fresh condition this cavity was filled with a recent black clot, mingled with a little white fibrin connected with the fibrinous clot in the dilatation above the clavicle, but not attached to the fibrinous wall of the lower dilatation.

The clot in the dilatation above the clavicle extended across the calibre of the vessel, and prevented the flow of blood into the axillary vessel.

It should have been mentioned that the upper lobe of the lung was attached to the thoracic wall at the level of the seventh rib from the spine around to the sternum. In the thoracic aorta, atheromatous disease was very marked; the calibre of that vessel was irregularly dilated, and in parts the coats were quite thin. The other arteries, with the exception of the innominate and right subclavian, were normal. The cords of the brachial plexus of nerves were intimately connected with the upper portions of the tumor, and were pressed against the under-surface of the clavicle.

The subclavian vein was found stretched over the upper dilatation, and its calibre was so encroached upon that the return-blood was markedly obstructed.

The other organs were entirely normal.

Remarks.—The aneurism commenced in the second portion of the subclavian, and reached slightly into the third portion of the vessel. (This statement is made approximately, as the guiding-mark, the first rib, had disappeared.) The dilatation of the vessel was not uniform; the upper and the lower walls alone seem to have participated in the bulging.

The lower dilatation descended into the thorax, eroded the first and second ribs, and depressed the apex of the lung, becoming a *diffused* aneurism, after the manner described by Erichsen.

At the operation, therefore, it is probable that the aneurism had no true sac, but was bounded by the lung-tissue, pressed downwards from its normal position and condensed, and by the muscular tissues around the apex of the thoracic cavity.

The horse-hairs were thrust into this cavity, and their effect was good, resulting in a marked decrease of the pulsation and thrill felt below the clavicle,

although there was no decrease of the pulsation in the tumor above the clavicle.

It was not until the third day after the operation that the clot began to interfere markedly with the circulation, sufficiently to interrupt the radial pulse. After this day the tumor above the clavicle began to harden, through the extension of the clot from below upwards, and this coagulum barred quite completely the passage of the blood into the axillary vessel, but did not absolutely prevent its entrance, for it is recorded in the notes that the recumbent position slightly restored the radial pulse. Simultaneously with the hardening of the tumor above the clavicle, the return of venous blood from the arm was interfered with by pressure on the subclavian vein, which, at the autopsy, was found stretching over the anterior face of the upper dilatation.

Now, the formation of this clot, which only partially obstructed the vessel, and which from the position of the upper dilatation was connected with the clot in the lower opening only at its distal portion, directed the full force of the blood-current into the proximal portion of the lower opening against the new-formed clot, which, from its position, had no connection with the clot in the upper dilatation. The effect of this strong blood-current was to hollow out a new cavity in the site of the former aneurism. Inspection of the walls of the cavity shows this result very clearly, for on its walls are found a loop and two ends of hair protruding into the newly-formed cavity.

The formation of the clot in the lower sac was producing a cure of the aneurism, similar to results seen in the natural cures of sacculated aneurism, by the deposit of laminated clot in the sac, leaving a passage for the blood through the vessel behind it. If the sac had been well supported by firm tissue, and not, as was the case, been allowed to descend farther into the thoracic cavity by the receding lung, all might have been well, and a cure resulted.

It has been shown that there was no communication between the sac of the aneurism and the mass of dark clot found in the thoracic cavity. Whence, then, came this blood, and what force was it that compressed the lung and stripped the ribs of their covering, and pressed out the tissues in the axilla? The first cause that acted to compress the lung and denude the ribs was the sac of the aneurism; and this pressure must certainly have caused an adhesion to take place between the two pleural surfaces, and when the new cavity was formed in the laminated clot it again began to press down in the thoracic cavity, tearing apart the lung and pleura, stripping the ribs of their covering, and compressing the lung. The process of tearing the pleura lacerated the intercostal vessels, as they were found lacerated at the autopsy, thus supplying a source for hemorrhage,—hemorrhage that was not likely to cease, hemorrhage that was likely to be very gradual, but still of an increasing character, as each rib and its intercostal artery suffered in succession as they were found to have suffered. No hemorrhage from a ruptured aneurismal sac or from a lacerated lung would have been so slow in its progress, nor would the force of an increasing accumulation of blood from either of these sources have been applied in such a manner as to push outwards the periosteum of the ribs and their intercostal muscles. The force must have proceeded from the line of ribs, and worked in both directions, compressing the lung one way, and pushing the tissues of the costal wall in the other direction.

The notes of the case show that the accumulation in the thoracic cavity was very gradual, that there was no rupture of the aneurismal sac and consequent sudden depression of the circulation, and that there was no sudden laceration of the lung with its attendant copious hæmoptysis.

The symptoms show a gradual compression of the lung, and that when the upper dilatation of the vessel hardened, and the clot obstructed completely the flow of blood into the axillary artery, an increasing fulness in the axillary and subclavicular region showed that the laminated clot in the aneurism was being forced downwards, and from that time a gradually increasing dulness of percussion was found posteriorly and laterally, corresponding to the position the blood occupied in the thoracic cavity.

And further, the tumor in the axilla was never a fluctuating mass during life; it was always tense, showing the great pressure the blood in the thoracic cavity was under, and the great force it was capable of exerting; after death, the axillary tumor was soft under pressure.

The stridulous breathing noted before death was undoubtedly caused by the pressure of the encroaching blood-mass narrowing the calibre of the bronchi, and possibly the trachea.

PAPILLOMATOUS GROWTHS IN THE LARYNX OF A CHILD.

Read before the Pathological Society of Philadelphia.

BY R. M. BERTOLET, M.D.

I AM indebted to Dr. Mears for this fine specimen of laryngeal papillomata. Unfortunately, we have only the left lateral half of the larynx and trachea to exhibit; the other half of the organ is said to have presented about the same development of the papillary excrescences. The vocal cord is entirely concealed, and the Morgagnian ventricle is nearly filled by these finely-fringed growths, which are also seen covering the ventricular band and extending down over the subglottic region. From such an extensive invasion, which must have almost completely filled up the glottic fissure, it is easy to surmise the symptoms of croup, aphonia, and dyspnœa that must have manifested themselves during life.

The only history obtainable in the case is to the following effect. A male child, 2½ years old, about three months ago became hoarse, and soon presented symptoms of croup, for which it was unsuccessfully treated by a young medical student, until death by asphyxia occurred. No laryngoscopic examination being made during life, no attempt to remove the growths was made. Trache-

otomy was not performed. It cannot be ascertained whether the child presented any evidences of hereditary syphilis: the father, however, is said to have marks of constitutional syphilis.

The microscopic appearance of this specimen does not differ from that ordinarily seen in these growths; most of the papillæ are covered with several layers of tessellated epithelium, but at some points a layer of long cylindrical cells is seen covering the entire papillæ. Ciliated epithelium, however, is not formed. These epithelial cells are supported upon a very thin column of connective tissue, with small blood-vessels in the centre of each papilla.

The aggregation of a number of these papillary growths forms the papillomatous tumors of the larynx, presenting the well-known cauliflower appearance. In this region these growths do not differ from those formed upon other situations of the mucous membranes; they closely resemble the hypertrophied papillæ of the cutaneous surface as met with in condyloma and verruca. They are by far the most frequent variety of tumors found in the larynx. Of one hundred growths in the larynx, Mackenzie found no less than sixty-seven belonging to this class. They have been observed much more frequently in the male than in the female. The vocal cords seem to be their seat of predilection. Papillomata of the larynx are also more apt to occur at an earlier period of life than the other varieties of neoplasms. In the forty-eight cases of congenital laryngeal growths and in those occurring during infancy collected by Dr. Causit, nearly all, when examined microscopically, were found to belong to the non-malignant papillomata.

This makes the third case of laryngeal growth occurring during childhood that I have as yet seen and had an opportunity of examining microscopically. One was exhibited by Dr. William Pepper to the Philadelphia Pathological Society in 1871. The other is an unpublished case, which I desire to report briefly in this connection, since its microscopical appearances so closely resemble those of the preceding case that one description and illustration will serve for both. It was also the first instance in which I resorted to the freezing process to induce local anæsthesia of the larynx. This method and its practicability, it will be recollected, were fully detailed at the last meeting of the Society, in connection with the removal of the tracheal growths then exhibited.

E. M., æt. 11 years, was referred to me by Dr. Pepper in November, 1871. One and a half years previously the boy first began to grow hoarse; this gradually increased until he was no longer able to speak above a whisper. Upon attempting to speak loud, he complains of a painful sensation in his throat. When quiet and resting, the patient's breathing is always noisy, accompanied with prolonged inspirations. It becomes more hurried and difficult after any active exertion. He is frequently aroused from his sleep with more or less pronounced dyspnœa,—"sitting upright and gasping for breath." The aphonia is so pronounced that he is unable to speak loud enough for his teacher at school. No marked general or local affection appears to have ushered in the hoarseness in this case; the mother and attending physician imagining that the boy was merely suffering with a protracted cold.

The attacks of dyspnœa, accompanied with lividity of the features, also occur occasionally during the daytime. The mother states very positively that these paroxysms have very often appeared for several years prior to the commencement of the aphonia, thus pointing to a very early period at which the papillomata first made their appearance. The general health of the patient is undisturbed.

The laryngoscope showed the mucous membrane lining the epiglottis and larynx to be congested and of a deep-red color. The anterior third of the rima glottidis is filled up with a large, uneven mass of papillary growths, of a reddish-white color. They arise from the mucous membrane covering the parts inserted in the receding angle of the thyroid above the vocal cords; a second smaller mass was subsequently observed arising from the under surface of the left vocal cord, also near its point of insertion into the thyroid cartilage. The movements of these growths during forced respiration were very slight.

The larynx was found to be extremely irritable, so that a spasm of the ventricular bands and vocal cords would ensue whenever any instrument was introduced. This irritability was in a great degree overcome by frequently catheterizing the parts, yet not sufficiently to permit of the evulsion of the growths. Local anæsthesia by means of the chloroform and morphia pencillings, owing to the youthfulness of the patient, was not deemed advisable. The freezing process, however, was applied, and, after several ineffectual attempts, finally permitted the parts to be manipulated with the greatest freedom. At first the pain caused by the rhigolene was too great to be endured for any length of time. Subsequent applications were better borne. The growths were removed by means of the wire écraseur and the crushing laryngeal forceps of Mackenzie, and the points of attachment subsequently cauterized with solid nitrate of silver. The patient being very irregular in his attendance, the treatment extended over a period of nearly one year: he was dismissed as cured in October, 1872, a slight roughness only remaining to the voice. The patient would curiously titillate either of his ears; referring the pain to the ear corresponding to the side of the larynx which had been seized upon by the forceps. A number of trials were made of this curious phenomenon by many of my colleagues, in which the patient invariably referred the pain to the ear of the same side as that of the larynx touched. An intense ringing noise, lasting from one to two minutes, would be complained of in the ear, which the patient said was the reason for the insertion of his little finger into the external meatus.

ARE THE CONVULSIONS OF CARBOLIC ACID POISONING CEREBRAL OR SPINAL IN THEIR ORIGIN?

BY JOHN R. HAYNES, M.D.

IN Prof. H. C. Wood's recent work on Therapeutics is a highly interesting account of the physiological and therapeutic action of carbolic acid. It is shown that this agent in poisonous doses produces general convulsions; and, further, that the seat of these convulsions is undetermined, the French observer Labée maintaining that they originate in the brain, and the German Salkowski asserting with equal positiveness that their source is in the spinal cord. It might be supposed that no difficulty would exist in settling this question by

poisoning one of the lower animals with the drug and dividing the cord. If convulsions still occurred in the posterior limbs, no doubt would exist of their spinal origin, and *vice versa*.

Both the observers mentioned have thus experimented, and each has found the results to corroborate his views.

The following experiments were undertaken with a view to the determination of the question.

Experiment I.—The spinal cord of a cat was divided between the first and second dorsal vertebræ, and three drachms of liquefied carbolic acid were injected into the connective tissue. In fifteen minutes the muscles of the head, anterior extremities, and abdominal walls began to contract spasmodically, and soon well-developed clonic convulsions set in. The posterior extremities were moved slightly by the action of the abdominal muscles. The dorsal aspect of the cat remained perfectly quiescent. As soon as the convulsions became marked, the animal, which had remained in a semi-unconscious state after ether had been given to destroy the pain of the operation, was killed.

Experiment II.—Three drachms of liquefied carbolic acid were injected into the peritoneal cavity and subcutaneous connective tissue of a cat, after dividing the spinal cord between the fourth and fifth cervical vertebræ. In ten minutes the muscles of the face were convulsed, together with the diaphragm. The extremities remained motionless, except when excited by local irritation, when marked reflex movements occurred. The animal was killed in half an hour.

Experiment III.—Two drachms of liquefied carbolic acid were injected into the cellular tissue of a cat. Fifteen minutes afterwards convulsive movements of the head and extremities commenced, and continued to increase in strength. In half an hour another drachm of the acid was injected, and the convulsions grew still stronger. After a second interval of half an hour, an additional drachm of acid was injected, making half an ounce in all. The convulsions shortly became less marked in the posterior extremities, and then ceased. The anterior extremities moved more feebly than before, but did not become still until death, which happened three hours after the first injection.

From these experiments it is evident that the convulsions of carbolic acid poisoning are of cerebral origin. In experiments showing a contrary result, the spinal cord could not have been entirely divided.

THE TREATMENT OF EPISTAXIS.

BY ELLIOTT RICHARDSON, M.D.

HAVING read recently, in *The Dublin Journal of Medical Sciences* for November 1, 1873, a paper by Dr. Leeper, describing a simple method of arresting hemorrhage from the nose by the use of suppositories containing persulphate of iron, it occurred to me that it might be worth while to offer to the readers of the *Philadelphia Medical Times* a brief account of a somewhat similar procedure which I found very efficacious in a case of very obstinate and profuse bleeding from the nares, which came under my care when a resident in the Pennsylvania Hospital, during the winter of 1869–70. The patient was a negro woman, who had been subject to occasional attacks of epistaxis, which had always yielded to the use of cold or other simple remedies.

When she came to the hospital she said she had been bleeding from the nose for several days; but as her appearance did not indicate extreme anæmia, and as the hemorrhage was promptly stopped by some simple application which I do not now recollect, and did not return within the hour which I directed her to wait, I was not inclined to credit her statement, and sent her home, with directions to return if epistaxis should again occur. In the course of three or four hours she returned, with the blood again flowing. She was now placed at perfect rest in bed, and the hemorrhage again checked, only, however, to return with increased profusion in about half an hour. After several remedies were employed unsuccessfully, I concluded to try a more continued application of styptic material to the bleeding surface. Two strips of lint were cut about an inch wide, and over one surface of each powdered persulphate of iron was sprinkled. Each strip was then rolled up, making a plug large enough to fit closely in the nostril, containing, within, the styptic powder, and leaving only the clean surface of lint to come in contact with the mucous membrane. One of these was placed well within each nostril, and retained in position, all clots having previously been removed. As successive portions of the rolls became moistened with blood, the persulphate was dissolved out, and speedily stopped the hemorrhage. The plugs were allowed to remain in for twelve to twenty-four hours, when they were removed without difficulty, and without the occurrence of further hemorrhage.

In the number of your journal for August 1, 1872, Dr. Curtin reports a somewhat similar method of using tannic acid, though, if I mistake not, he advises the tannic acid to be brought directly in contact with the mucous membrane.

The advantages of the method I have described are evident, since it enables the surgeon to place a repository of a powerful styptic near the seat of hemorrhage, without bringing it in direct contact with the mucous membrane, thus avoiding the superficial but annoying slough which always follows the direct application of dry persulphate of iron or a concentrated solution of it. It also furnishes an abundant supply of the material, which is dissolved out only as it is wanted by the bleeding vessels.

In cases where it will answer the desired purpose it is infinitely less difficult to apply, and less oppressive to the patient, than the plugging of the anterior and posterior nares,—an operation always disagreeable both to the patient and the surgeon. Dr. Leeper advises to combine with the local treatment free internal use of ergot.

CASE OF ASCITES CURED BY DIGITALIS.

BY W. S. MAXWELL, M.D.

LOUISA R., aged 36 (colored), had been suffering for several months with abdominal pain, suppressed menses, and general debility, with swelling of the abdomen. April 1, 1873, my father saw her with me.

The abdomen was greatly distended, and contained, I suppose, from three to four gallons of fluid. Bowels were constipated, breathing difficult, violent colics would ensue on eating the most simple things. Urine was scanty and high-colored, pulse quick and feeble. She was unable to lie down at all, owing to the difficulty of breathing.

Treatment.—Hydrargyri chloridum mite, gr. v, was ordered at bedtime, with potassi bitartras and jalap in the morning as a purge; this was continued for some time with good effects at first, but it soon ceased to do any good. Digitalis, squill, infusion of juniper-berries, and numerous other diuretics, were given, while the strength was supported by tonics, stimulants, and nutritious diet, but without avail.

June 1.—We saw her together again. The symptoms were growing worse. Tapping was suggested, but postponed for a while. Two grains hydrargyri chloridum mite with one-fourth grain of opium were ordered three times a day, and fifteen drops of tincture of digitalis every six hours. This course was persevered in for several weeks; the fluid was all eliminated by the kidneys.

At this time, March 2, 1874, the woman is enjoying good health.

STILL-POND, MD.

TRANSLATIONS.

THE LOCAL TREATMENT OF CAVITIES IN THE LUNGS (Fr. Mosler: *Centralblatt für die Med. Wissenschaften*).—In the cases of two patients who had cavities in their lungs, lying near the surface, and of whose recoveries no hopes were entertained, Mosler performed the operation of paracentesis thoracis, and injected a dilute solution of the permanganate of potassa.

There was no reaction in consequence of the procedure, and the general symptoms of the patients were so much more favorable that he was encouraged to make a fistula directly into the lungs. The patient who was thus operated upon was a man aged 49 years, who had had a cavity in the upper lobe of the right lung for five years, and who was also suffering from amyloid degeneration of the kidney and intestine.

On the 2d of July, 1873, a perforation was made in the second intercostal space, five and a half centimetres to the right of the edge of the sternum, through the intercostal muscles and the pleura, and was continued into the cavity in the lung. Into the opening thus made a silver drainage-tube was inserted, through which there was a free discharge of pus, which was increased by coughing. The operation was not followed by fever, and the general condition of the patient was much improved. An attack of hæmoptysis occurred; for the relief of this, a diluted solution of the persulphate of iron was injected through the canula, with the happiest effect; and, later in the treatment, inhalations of atomized carbolic acid and tincture of iodine were made in the same way. The pus became more healthy, was less in amount, and the process in the lung seemed to be retarded in its progress; the patient, however, gradually sank, and died four months after the operation.

On account of the discharge of pus, which continued to the last, the introduction of carbolic acid through the canula was continued twice daily until the death of the patient.

At the autopsy, the two layers of the pleura were found to be adherent over the whole of the right lung, and on the upper lobe of the lung the change had gone on to the formation of a thick, white false-membrane, of an almost cartilaginous consistence. Through the anterior part of the other lobe there was a fistulous canal leading to a cavity filled with a yellow, creamy fluid, which involved the greater part of the upper lobe. This cavity was lined partly with a smooth membrane, and partly with ridges upon the apices of which some feeble granulations were to be seen. The spleen, kidneys, and intestines were found in an advanced stage of amyloid degeneration. From the results of the treatment pursued in the case, Mosler concludes that the lungs are more tolerant of surgical interference than has been supposed. He thinks, too, that the method is of some value in rendering the symptoms less severe, and hopes that more careful experiments of a similar character will be made. W. A.

OPERATION FOR CANCER OF THE RECTUM BY MEANS OF THE GALVANIC CAUTERY.—Dr. Verneuil is said (*Gaz. Méd. de Paris*) to have performed recently the following operation for the relief of cancer of the rectum.

By aid of the galvanic knife, a horse-shoe incision was made, the convex portion of which was situated between the anus and the vulvar commissure, while the branches terminated on a level with the point of the coccyx.

These branches were united by a transverse incision a little behind the anus, and thus a flap was formed which might be called coccygeal, since it was detached from the deeper parts: it was held out of the way by an assistant. The various tissues being divided by delicate strokes of the galvanic knife, the isolation of the rectum from the vaginal walls was completed, and, the superior limits of the tumor being reached back of the rectum, the latter was divided longitudinally by the écraseur. By using the écraseur four times, the upper limits of the tumor were then separated, and the entire mass detached.

About two and three-eighths inches of the rectum were removed by this operation, which possesses the advantage of being performed without hemorrhage and allowing a full view of each step of the procedure. When last heard from, after several weeks, the patient was doing very well. A. V. H.

CUTANEOUS DISEASE CAUSED BY THE BROMIDE OF POTASSIUM.—Dr. Neumann reports (*Wiener Med. Presse*) the case of a child æt. 5 months, suffering from a cutaneous eruption due to large doses of bromide of potash. The child had, in the course of a prolonged treatment for convulsions, taken sixteen scruples of the salt, and the eruption made its appearance after twelve scruples had been taken. Tubercles of a hemispherical shape, the size of a pea, upon the summits of some of which were crusts, were found on the body and the hairy scalp. After the removal of the crusts there could be pressed out a mass of sebaceous matter, colored yellow by the admixture of pus. On the forehead, and more especially on the skin of the cheeks, the spots of the eruption were larger. Upon the left cheek there was a spot about the size of a thaler, covered with dry crusts of a dark-brown color. Beneath these crusts were numerous protuberances of a warty character. The eruption was most marked on the lower extremities. In addition to the crusts described above, upon the leg there were seen also bullæ of various sizes, filled with a fluid of a yellowish tinge. A microscopic examination demonstrated marked changes in the upper part of the crusts, and also in the hair-follicles and in the sebaceous glands. W. A.

AMYLOID DEGENERATION OF CARTILAGE.—M. Hénocque (*Gazette Médicale*, February, 1874, p. 95) describes briefly amyloid degeneration of the bone-cartilages,—a degeneration whose possibility has previously been proven by Virchow and by Hagen.

PHILADELPHIA
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EDITORIAL.

OUR ANNUAL OVERFLOW.

IN our editorial of last week we advanced the propositions that the medical colleges (as at present organized) are the enemies of the profession, and that the faculties are not to be blamed for this and are not to be expected to alter it. The deficiencies of our educational system are so generally admitted that they scarcely need any further illustration than that which we gave last week. In the various discussions upon the subject which we have listened to, however, we have never yet seen any one who was bold enough to tell the whole truth; and to-day, at the risk of incurring the curse which the Jewish Bible laid upon those who uncovered the nakedness of their parents, we propose to say some things which we believe the profession needs to look squarely and honestly in the face; for, in all earnestness, it seems to us that, in spite of the clamor, we are somewhat in the position of the man who dares not be honest to himself and place his deeds and his character at the judgment-seat of his own reason.

The *theory* of medical education at present is that the candidate studies a year and a half in the office of some practitioner, and then attends two courses of lectures before he graduates, making, in all, a term of three years. The *fact* is that a large proportion of the candidates really study only one year and a half, and some only one year. A farmer's son determines to be a doctor; forthwith he applies to the family physician, is dubbed a medical student, and borrows a treatise by some ancient worthy,—a treatise which was, perhaps, the meat and the drink of his preceptor's student-life, thirty years before. So far, so good; but money is scarce, and through the long summer months the farmer utilizes his heir in the harvest-field, or more commonly the young man teaches the district school to gain the means which shall support him during the winter in the city. October finds him at the college. All winter long he labors, or loafs, as the case may be. The next spring he hies away to the country, to return again in the autumn; having, it may be, spent the summer precisely as the previous one, or else having gone over certain text-books very much in the sense of the boy who laid his book on the floor, stepped over it, and, in reply to his teacher's questions, vigorously asserted that he had been over his lesson three times. Often the last summer of a student's life is given to honest study, but often it is not; and it does not pass the power of human knowledge to know men who have graduated when they had done no real work until the last winter session. The knowledge which the examining board has as to the time during which the candidate has prosecuted his studies is often derived solely from the statements of the candidate himself, and from his having bought two sets of tickets. We know that at least sometimes untrue statements pass unchallenged: so that the man who has not, except on his thesis-paper, even pretended to study for more than a year and a half is recorded before the degree-conferring power as a three-years student. These things being so, it is evidently preposterous to claim that our graduates are students of three years' standing. What is the examination that tests the fitness of candidates thus prepared? Performed by men whose bread-and-butter depends upon the number that they let through,—performed by these men in secret, with no responsibility to any power but their own consciences,—performed with the knowledge, or at least with the belief, that if they do not dub the medical knight a rival organization will do it for him gladly,—performed under these circumstances, the examination cannot be anything other than it is, *i.e.*, an apology to public opinion, the last act of a farce before the tragedy commences.

If any one doubts these things, let him ask our army medical examining boards during the late war as to the deficiencies of many of the graduates of the most respectable schools; or let him ask coachers, or, as they are commonly called, "quizzers," and, our word for it, he can find men who have had hundreds of students, good, indifferent, and bad, who will testify that they have graduated num-

bers of ignoramuses, and have lost scarcely one per cent. of the applicants. If there be yet a doubting Thomas, let him get the private confidence of some consultant, and find the fruits of this annual sowing.

How can a profession be honored that sells its birthright for a mess of pottage? How can any body of men be distinguished as a whole, when a few hundred dollars and a few months' work give admission to the ranks? It is hard to tell whether to laugh or to cry over the solemn farces of Commencement-Day; but assuredly the spectacle of grave critics searching assiduously for the causes of the profession's low estate, when the mud of the quagmire is upon their very persons, is most laughable.

Unless these critics are the blindest leaders of the blind, they must be hugging delusions that they may hide that which they are afraid to see and may quiet the fancies of uneasy consciences. The marvel is not that we have so little, but that we have so much, of public confidence. The reason that we are still looked upon with a measure of esteem is that there are numbers of medical students who feel deeply the responsibilities of their position, and avail themselves of the opportunities offered to become really educated physicians; the fault of the colleges being not that they do not afford sufficient opportunity to those desirous of eminence, but that they do not require the student to prepare himself thoroughly before granting him a diploma.

We had fully expected to discuss our second proposition in the present editorial, but our pen has run away with us, and, the allotted space being already filled, our final words must be postponed for another week.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, FEBRUARY 12, 1874.

THE PRESIDENT, DR. WM. PEPPER, in the chair.

DR. JOSEPH G. RICHARDSON presented, for Dr. A. FRICKE, the specimens from a case of *general tuberculosis with enlarged lymphatics* from a German girl aged 21 years, admitted into the German Hospital on November 17, 1873. The principal symptoms upon admission were slight cough, headache, pain in the lumbar region and also upon the inner side of the limbs. Her own expression was that she felt tired, and only wished to get into bed. Her clothing was wet; her feet were very cold and wet. The most noticeable feature was great enlargement of the cervical glands. The lymphatics in other portions of the body were also enlarged, as was found upon subsequent examination. At the very first, symptoms of a typhoid character began to manifest themselves. During the second twenty-four hours after her admission she gradually became unconscious. No food, however, liquid or concentrated, would she swallow. This condition continued, gradually becoming more grave, until she died on November 27, 1873, ten days after admission.

A *post-mortem* examination was made; it was found that all or nearly all of the organs were more or less infiltrated with tubercles. There were evidences of violent inflammation of the brain: tuberculous deposit at the base, and considerable exudation into the ventricles. The lungs were studded with small abscesses. The liver was affected also, as was the spleen. The mesenteric glands were greatly enlarged; also, the deep lymphatics of the abdomen and pelvis.

Dr. H. LENOX HODGE exhibited an *ovarian tumor*, removed by Dr. Agnew. The patient was 33 years of age, married, and the mother of two children. The tumor was first noticed in January, 1873; since then it had steadily increased in size. She was tapped in December, and again in January. The tumor is multilocular, and weighed eighteen pounds, solid and fluid. The microscopical examination has been made by Dr. Richardson.

Dr. JOSEPH G. RICHARDSON said he had recently made some examinations of ovarian fluid with a view to determine the presence of the so-called *ovarian cell* of Dr. Drysdale, and that in some six examinations which he had made he had invariably discovered it.

Dr. JAMES TYSON said he thought the way to settle the question was to examine, not ovarian fluid, in which the cell undoubtedly existed, but fluids from other sources, with the view of determining the possibility of its occurrence elsewhere.

Dr. T. desired also to say that in the discussions into which he had entered during the past year upon this subject, and in which he had taken decided ground against the existence of any peculiar ovarian cell, the idea he had entertained of the characters of the cell referred to by Dr. Drysdale was erroneous. He had thought Dr. Drysdale alluded to the ordinary compound granular cell or exudation corpuscle of Gluge; but only recently, from the paper which Dr. Drysdale had kindly sent him, he had learned that the cell resembled more in size and characters the *leucocyte* in a state of fatty degeneration, and he had not as yet made any comparative observations to determine the presence of this body in other than ovarian tumor.

Dr. RICHARDSON remarked that if it could be proved that the leucocyte exhibited characters in its degeneration which were peculiar to ovarian fluid as contrasted with other abdominal liquids, it would still serve to detect such fluid, and might with propriety be called an "ovarian cell."

Dr. HODGE said there was one point in connection with this ovarian cell which he thought had not been alluded to even by Dr. Drysdale,—that is, as to whether it was found only in ovarian *fluid*, or in the semi-liquid gelatinous and solid matter of which ovarian tumors are also made up.

Dr. BERTOLET said he had not a clear idea of what was comprised by the term "*leucocytes*," and desired much to know its limitations.

Dr. TYSON replied that, after other better-known histologists, he had always used the word *leucocyte* in a generic sense, as including all that class of small, round, variously granular cells which, according to the situations in which they were found, were variously called white blood-corpuscles, mucus-corpuscles, young pus-corpuscles, or the round cells of connective tissue,—in other words, *dead amœboid cells*.

Dr. BERTOLET said he thought this was an error, in which theory had been allowed to supplant practice;

that the white corpuscle and pus-corpuscle were not the same.

Dr. RICHARDSON said the word leucocyte had been originally introduced by Charles Robin, who applied it to the class of bodies named by Dr. Tyson, whether alive or dead, as well as to exudation-corpuscles, and he believed also, provisionally, salivary corpuscles. He thought that if any one would treat white corpuscles contained in a drop of blood from his finger, first with water by introducing a small quantity at the edge of the thin glass cover, and then with weak aniline solution, in the manner described in his report on the white blood-corpuscle (Am. Med. Assoc. Trans., 1872), he would have no difficulty in finding many globules which exhibited two or three, and occasionally those which displayed four or five, well-formed and strongly-tinted nuclei, and which manifested a precise identity, in that respect at least, with the leucocytes of pus, as described by older pathologists. By this experiment it was easily demonstrated that the characteristic formerly so much relied upon for the recognition of the pus-cell, and quoted by Dr. Bertolet,—namely, that it possessed two, three, or more nuclei,—was valueless as a means for its discrimination from the leucocytes of blood.

Dr. TYSON admitted that pus-corpuscles soon became very granular from fatty degeneration, and then presented objects which did not so closely resemble the white blood-corpuscle; but in their young state he did not think they could be distinguished, and to acetic acid and water both responded identically.

Dr. RICHARDSON said that about one white corpuscle out of thirty is ordinarily more granular than its companions, and he was strongly inclined to think that these white corpuscles were also the seat of fatty degeneration.

The PRESIDENT said it was very important to have clear ideas as to the exact application of terms. He presumed, of course, that this discussion referred simply to the morphology, and not the vital properties or developmental tendencies, of the cells in question. He said that he himself had been called upon to study cases where inflammation had obliterated the trunks of vessels,—a matter which brought up directly the question of being able to distinguish between the corpuscles in the surrounding inflamed tissue and the white corpuscles which remained in the softened clots. By no means which were available could he distinguish between the two.

Dr. RICHARDSON thought the more he studied the subject in connection with Cohnheim's observations, the more he was led to conclude that living leucocytes of pus and blood were identical physiologically as well as morphologically.

Dr. MORRIS LONGSTRETH exhibited the *specimens from Dr. Levis's case of aneurism of the subclavian artery*, treated by the introduction of horse-hair. (See Original Communication in current number of the *Medical Times*.)

Dr. HUTCHINSON said that he had examined the patient, both before and after the operation. There was a pulsating tumor above the clavicle, and another below it. Some of those who saw the case believed that the latter was situated entirely outside the chest-walls; while others thought it was due to the protrusion of an intra-thoracic aneurism. He had himself held the former opinion, because he thought he could feel the ribs passing beneath the tumor, into which the axillary artery could be traced. The autopsy showed that he was wrong, but it also demonstrated that the view that the aneurism had begun within the chest was also incorrect.

Dr. JOHN ASHHURST, Jr., remarked that an interesting fact revealed by the post-mortem examination was the existence of *two* aneurisms, one arising from the upper surface of the vessel and extending above the clavicle, and the other originating on the lower surface and passing downwards into the chest, eroding the ribs, and finally making its appearance anteriorly. This condition does not appear to have been suspected before death, and the specimen thus furnishes an illustration of the frequent impossibility, in cases of internal aneurism, of making a positive diagnosis.

Dr. HUTCHINSON said there was no question but that the aneurism became more diffuse after the introduction of the horse-hairs. He had examined it after the operation, and there was an immense increase, while the aneurism above the clavicle very early became solid, and no expansive pulsations could be felt after a few days.

The PRESIDENT asked Dr. Hutchinson in what the rapid increase of the aneurism after the operation revealed itself, whether by extension of the area of dulness in the infra-clavicular region, or otherwise.

Dr. HUTCHINSON said he did not know what changes occurred in the first week, but that after the operation the dulness had extended very rapidly to the third, and probably to the fourth, rib. There was also posteriorly a corresponding extension of dulness, and there was bloody expectoration. He thought these symptoms might have been due to a low form of inflammation set up about the sac.

The PRESIDENT asked to how great an extent could the coats of the aorta be traced into the aneurismal cavity.

Dr. LONGSTRETH said he and Dr. Meigs had made a very careful examination, with a view of tracing the sac, and found none within the border of that cavity; within half an inch of where the aneurism gave way, there was no trace of anything but clot.

Dr. R. M. BERTOLET presented, for Dr. J. EWING MEARS, a portion of *the larynx of a child two and a half years old, filled with papillomata*. The child was healthy until two months ago, when there appeared symptoms of croup, which continued until death. It was born of syphilitic parents. The case is published in the current number of the *Times*.

Dr. JAMES TYSON presented a specimen of *intussusception* of the small intestine into the large, through the ileo-cæcal valve, from an infant boy seven months old. On Sunday, January 24, the child was remarkably bright, playing and romping with his father to an extreme degree. On the following day he had several discharges of blood, but no other matter, from the bowels, and towards evening vomiting set in. In the evening Dr. T. saw him, and, suspecting the condition at once, directed a dose of oil, followed by small doses of calomel (one-sixth gr. every hour). On the following day injections were ordered, and the calomel continued, to no purpose. On Wednesday the vomiting almost ceased, but the bowels remained unopened, and there was distinct dulness in the right iliac region. The vomiting returned the following day, there was more discharge of blood from the bowels, and the child died at 4 P.M. on the 29th, having had quite a normal stool immediately before death.

The *post-mortem* examination was made the next day. The abdomen, which was never markedly tympanitic, contained a large amount of fetid sero-sanguinolent fluid. There were peritonitis, and intense injection of the bowel throughout almost its entire extent, and the tumor presented was found at the seat of the ileo-cæcal valve. It was three inches in diameter, and a portion of intensely congested small intestine had passed through the orifice and formed the tumor.

Dr. TYSON also exhibited a *gall-stone* three-eighths of an inch in diameter, a nearly perfect octahedron, with somewhat irregular facets, passed by an unmarried

female about 30 years of age. She was jaundiced, her urine was loaded with bile, and she had the usual pain of biliary colic, which was somewhat intermittent, being worse at night. After an unusually severe attack the stools were examined, this stone found, and she rapidly recovered.

REVIEWS AND BOOK NOTICES.

ON DISEASES OF THE CHEST; BEING CONTRIBUTIONS TO THEIR CLINICAL HISTORY, PATHOLOGY, AND TREATMENT. By A. T. H. WATERS, M.D., Fellow of the Royal College of Physicians of London; Physician to the Royal Infirmary, etc., etc., Liverpool. Second Edition, Revised and Enlarged. Philadelphia, Lindsay & Blakiston, 1874. Pp. 431.

In this work, the first edition of which, forming a book of little more than half the size of the present volume, made its appearance in 1868, the author's object has been, as he states, to depict disease as found at the bedside, and to illustrate the application of therapeutics to thoracic affections by details of cases, without attempting to furnish a systematic treatise on diseases of the chest. It constitutes one of those valuable records of careful observation, made by a man of sound judgment and ripe experience in that best of all fields for correct medical investigation, a well-appointed hospital,—records which have for centuries formed the most substantial basis for the science of medicine. Some such harvest as this is, we believe, due to the profession from every man who enjoys the advantages of a hospital appointment; and, indeed, in those cases when year after year less fortunately-placed physicians come seeking fruit and finding none, we see no reason why the doom of the barren fig-tree should not be pronounced.

Dr. Waters first offers some observations upon the anatomy of the lung, in regard to the epithelium of the air-vesicles, on which point he differs from most modern authorities, including Rindfleisch and Franz Schulze; he then proceeds to consider the different forms and characteristics of pneumonia, in seven chapters, being the substance of nine clinical lectures; emphysema, in six chapters; and, more briefly, pleurisy, phthisis, hay-asthma, asphyxia, pericarditis, valvular disease of the heart, and thoracic aneurism.

Since it is manifestly impossible to furnish our readers with abstracts of these various lectures within the limits of this present notice, we will confine ourselves to a short *résumé* of our author's remarks upon the use of chloral hydrate in certain diseases of the chest. In the first place, Dr. Waters has found this drug "very valuable" in bronchitis, especially when complicated with emphysema, and when opium, if administered in quantities sufficient to produce sleep, might prove fatal. In such cases, from twenty to thirty grains of chloral have proved both efficient and safe as a hypnotic; whilst, to allay cough, five-grain doses of the same drug have sufficed. Our author has found chloral useful in procuring sleep in cases of asthma, both of the purely spasmodic kind and of that form complicated with emphysema; and has likewise employed it with great advantage in cases of phthisis pulmonalis and of disease of the heart, including both the fatty degeneration and valvular affections of the latter organ.

Dr. Waters mentions a few cases where distressing excitement or prolonged stupor followed the exhibition of chloral, and cautions us against its use in patients who are in the habit of smoking much and of drinking freely; also against continuing it for a long time, lest it enfeeble the circulation. He recommends that it should be administered in tincture of orange-peel or syrup of Tolu, well diluted with an aromatic water; the dose being given after the patient is in bed and quite ready to compose himself for sleep, since walking about, or even crossing a room, after swallowing the mixture, will often bring on vomiting. I. G. R.

A TREATISE ON THE DISEASES OF THE EYE. By J. SOELBERG WELLS, F.R.C.S. Second American, from the Third English Edition. Pp. 800. Philadelphia, H. C. Lea, 1873.

TREATISE ON THE DISEASES OF THE EYE. By Dr. CARL STELLWAG VON CARION, Professor of Ophthalmology in the Imperial Royal University of Vienna. Translated from the Fourth German Edition by Drs. D. J. ST. JOHN ROOSA, CHARLES S. GULL, and CHARLES E. HACKLEY. Pp. 171. W. Wood & Co., New York, 1873.

The prompt appearance of new editions of these standard works on diseases of the eye may fairly be taken as an index of the growing importance of this specialty, and of its appreciation by the profession at large. Owing to the diligence of the authors, and the care of the American editors, they represent fairly all our accurate and firmly-established information on the subject. The new methods of operation for cataract (Liebreich, Le Brun, Streatfield) are described but not criticised, the writers preferring, apparently, to wait for the slow but accurate appreciation of them gained by their application in a long series of cases. In both books the valuable researches of Schwalke, Schmidt, and Manz, demonstrating the lymphatic circulation in the eyeball and optic nerve, and the important rôle which it at times plays in the production of choked disk and inflammation of the optic nerve, have received due attention. The chapters on Diseases of the Retina and the Optic Nerve, treating, as they do, of the changes manifested in these organs in diseases of the nervous system, as also of those which are local manifestations of general diseases or lesions of particular organs, *e.g.*, those occurring in syphilis, leucæmia, diabetes, in Bright's disease, cerebral tumors, meningitis, etc., will be read with especial interest by the general practitioner. We are glad to see that the translators of Stellwag have insisted so strongly on the advantages obtained in ophthalmoscopic examination by the use of the upright image, which, owing to its magnifying the image of the fundus more strongly, enables us to see much more readily those minute changes which, in the use of the inverted image, owing to its smaller size and to the flood of light, are apt to escape our attention. Moreover, we can, in the direct method, employ the plane mirror and a comparatively feeble light, and thus render the examination far less annoying to the patient. The ophthalmoscopic plates appended to Stellwag are not so good as those in the earlier German editions; and those in Wells, taken from Liebreich's atlas, are less accurate than the originals. W. F. N.

DICTIONARY OF ELEVATIONS, AND CLIMATIC REGISTER OF THE UNITED STATES. By J. M. TONER, M.D. New York, D. Van Nostrand, 1874.

This little book, or overgrown pamphlet, of 100 pages, is evidently the result of a great deal of work and research upon the part of its author, and must be of great use as a book of reference to all students of the climatology of this great country. It contains, in addition to elevations, the latitude, mean annual temperature, and total annual rain-fall of all the cities, towns, and localities in the United States concerning which the requisite data have been obtainable. The orographic and other physical peculiarities of North America have also been noted with great care. The list of localities seems to be very full; but either our geography is at fault, or else the author is one of those sanguine and patriotic mortals who believe that this

great Yankee nation is to gorge the universe, and that the eagle of freedom is to screech from all the world's mountain-tops. We judge this because we find included in this list of elevations of the United States localities in Egypt, the Himalaya Mountains, Australia, South America, Europe, etc., etc. Of course this faith of the author in the nation of his forefathers does not lessen but enhances the value of the book, which we highly commend as a work of reference to all interested in the subject.

LA VIE: PHYSIOLOGIE HUMAINE APPLIQUÉE À L'HYGIÈNE ET LA MÉDECINE. Par le DR. GUSTAVE LE BON. Paris, J. Rothschild, 1874.

This book contains within its muslin covers a little over nine hundred pages of large type, and therefore does not afford room for a complete discussion of the great science of physiology. Indeed, we do not think the author of the work would claim any such position for his bantling, but would be well satisfied with the acknowledgment that it is a clear, well-written, and easily-read book, of such character as is wanted by the student of medicine; stating briefly and dogmatically well-established facts, and leaving to the future all the doubtful problems. As its name indicates, it is a treatise upon what we know in this country as the "institutes of medicine" rather than upon pure physiology. Thus, in the chapter upon blood, transfusion is discussed at considerable length, whilst the subject of the origin of blood is dismissed in a few words; and in the chapter upon the eye, such topics as the hygiene of myopia, and the choice of glasses, have found entrance.

A prominent feature of the book is the illustrations, of which there are three hundred and thirty-nine woodcuts: some of them quite striking, nearly all of them very good. It appears in some places as though an anatomical work had been emptied into the treatise, as we have page after page of cuts which are purely anatomical, representing bones, muscles, nerves, arteries, or viscera, as the case may be. In a student's book these illustrations are in place, but we opine that practitioners would prefer the space occupied by discussions of some of the questions which are imperfectly considered, seemingly from want of space.

GLEANINGS FROM OUR EXCHANGES.

DISLOCATION OF THE SPINE—REDUCTION.—The following case, reported by Dr. L. W. Bliss, is taken from the *Transactions of the Michigan Medical Society:*

A man, aged 41 years, was superintending the raising of a stick of timber, under which he had his shoulder, when it fell, carrying him beneath it, forcing his breast forward upon his knees, dislocating the spine at the eleventh dorsal vertebra, and fracturing the ninth, tenth, and eleventh ribs at their surgical neck, and the spinous process of the eleventh dorsal vertebra. He was removed from beneath the timber in an almost insensible condition, from which he recovered in about one-half hour, with complete paralysis of that portion of the body below the dislocation. An attempt was made to replace the vertebra by pressure, which failed, and extension and counter-extension were followed by a similar result. The surgeon then knelt upon the floor, and, stationing assistants at both extremities of the patient, he directed the body to be forcibly flexed over his knees as a fulcrum, while one hand was placed upon the dislocated part. In this manner, a reduction was effected, the spine resuming its natural appearance when the body was extended. In three minutes after the reduction the patient was able to move his feet, and sensibility returned, while the power of motion was recovered in half an hour. With the exception of retention of urine, lasting three days, no untoward symptom supervened. The patient was confined to bed for seven weeks, and availed himself of the assistance of crutches for five months.—*Boston Medical and Surgical Journal.*

BROMO-HYPERIDROSIS OF THE FEET (*Irish Hospital Gazette*, February 16, 1874).—Mr. Maturin reports the case of a girl, æt. 16, who was affected in the following manner by the use of a pair of slippers having vulcanized india-rubber soles with cloth uppers, the india-rubber covering the cloth over the toes, the posterior aspects of the heels, and a margin about half an inch broad along the sides. After wearing them a few days her feet became cold and white during the day, and perspired profusely; shortly after going to bed they grew red and swollen, with a burning, prickling sensation. In the next fortnight the perspiration increased, and the feet became excessively tender; and a week later, the slippers having been discarded, she applied for treatment. The soles and sides of her feet were white and sodden, extremely sensitive, and were covered with an offensive perspiration. The upper surfaces of the toes were slightly affected,—the diseased portion corresponding exactly to that covered by the india-rubber on the slippers. The patient was feverish, and had no appetite. She was ordered quinia in five-grain doses, low diet, and perfect rest. The next day her fever was less; the feet, however, were hot, the affected portions being of a bright-red color, and so tender around the margins, where the epidermis was thin, that she could not bear to have them touched. The odor and perspiration were both excessive. The quinine was continued, and she was given $\frac{1}{100}$ gr. of atropia every three hours. All the symptoms soon abated in severity under this treatment. She was kept moderately atropized for about five days, when she was entirely restored to health. The india-rubber in her slippers was carefully analyzed, but no deleterious impurities were discovered. The supposition is, therefore, that the disease originated simply from the irritation of the accumulated products of decomposed skin-excretions.

GALVANO-CAUTERY IN TRACHEOTOMY (*Le Mouvement Médical*, January 10, 1874).—M. Krishaber reports two cases of tracheotomy. The first was in a man æt. 45, affected with vegetations seated in the trachea and the subglottic portion of the larynx, and occupying almost entirely the superior part of the respiratory canal. The operation was performed with the galvanic knife, and the sections were made slowly and carefully; all flow of blood ceased at once on touching with the knife the artery which produced it, and this was also the case in a profuse secondary hemorrhage, which took place some hours after the operation.

The other patient was a man, æt. 63, with a laryngeal tumor which was causing more and more intense aphonia and dyspnœa, and thus rendered asphyxia imminent and tracheotomy inevitable. The operation was conducted in the same manner, but the hemorrhage necessitated the application of a ligature, and the tracheal opening had to be made with a bistoury. M. Krishaber, while admitting the hæmostatic power of the galvanic knife, believes that the ligature and bistoury are still preferable, as offering more security against secondary hemorrhage.

CEREBRO-SPINAL ARACHNITIS (*The Irish Hospital Gazette*, January 1, 1874).—At a meeting of the Pathological Society of Dublin, Dr. Grimshaw reported the case of a young man, æt. 23, who was suddenly seized

with vomiting, faintness, and pain of head and back. He rapidly developed the symptoms of acute cerebro-spinal arachnitis, and died at the end of five days during the supervention of a convulsion. There were no spasms until immediately before death; no purpuric spots were noticed before death; the pulse never had the characteristic jerk so often observed; there was no hyperæsthesia. The post-mortem examination revealed slight softening of a small space of the upper portion of the spinal cord, and a thin layer of subarachnoid lymph effused over its cervical region; hyperæmia of the sinuses and veins, and deposition of yellowish lymph for a limited space over the parts at the base of the brain.

MORBID ANATOMY OF SCARLET FEVER (*Irish Hospital Gazette*, February 16, 1874).—Dr. A. W. Foot, at a meeting of the Dublin Pathological Society, presented specimens, taken from children æt. 7 and 12 years, who had died, one on the fourth, the other on the third day, of an attack of scarlet fever.

In both cases the solitary follicles were universally enlarged throughout the small intestines, but especially in the first and last portions of the bowel, and there was a corresponding tumefaction of the mesenteric glands. The agminated follicles were morbidly prominent and distinct in the elder child, who appeared to have died from the consequences of mechanical dyspnœa, and in whom there had been a profuse pharyngeal catarrh, with pulmonary œdema. The tonsils were found to be in a condition of "necrosis," containing masses of dead tissue in the form of shreddy sloughs.

In neither of the cases were the renal organs abnormal in size or weight, and their vascularity was but slightly increased.

EXTERNAL APPLICATION OF CHLORAL (*L'Union Pharmaceutique*, January, 1874).—M. Martineau has derived great advantage from the topical employment of solutions of chloral. In the bed-sores of typhoid fever he uses an aqueous solution of the strength of one per cent., first washing the sore well, and then covering it with lint soaked in this liquid. He says its effect is remarkable: the sloughing, atonic region taking on a healthy aspect, granulating, discharging less, and proceeding rapidly to a cure. When there is offensive suppuration he uses a mixture of chloral and eucalyptus.

MISCELLANY.

EAU DE COLOGNE.—

"BOSTON, February 14, 1874.

"MESSRS. EDITORS,—The other day, while looking through the medical pamphlets preserved in our City Library, I came across an advertising circular entitled '*Vertus et Effets de l'excellente Eau admirable, ou Eau de Cologne*, approuvée par la Faculté de Médecine, le 13 Janvier, 1727;' from this I learned what was quite novel to me—that eau de Cologne was originally concocted for a quack medicine. In the circular, which in type, paper, and language bears evidence of belonging to the last century, it is stated that this water was invented by an Italian, Sig. Paul Feminis, an old distiller of Cologne.

"It is described as a 'volatile spirit, extracted from the rarest and most delicate simples; an elixir which has the power of restoring the parts of the body that are attacked by any disease, or predisposition to the same, of fortifying and re-establishing their natural functions, of insinuating into them a moderate and living warmth, which, sympathizing with their own, reanimates their vital forces, aids the coctions, and forcibly expels all the excrements.'

"The sheet ends with the usual

"'*Caution.*

"'It is undisputed that the Sr. Paul Feminis, inventor and author of the Eau admirable de Cologne, before dying, left his secret and the composition solely to Jean Antoine Farina, who notifies and cautions the public that Eau de Cologne, which is made and sold under any other name whatsoever, is neither of the quality nor the composition of that invented by the originator. The present owner, therefore, as the sole successor and inheritor of the said secret, making the only veritable Eau de Cologne, gives notice besides that every other brand is wanting in the good effects pertaining to that of the above said author, whose successor is Jean Antoine Farina, distiller at the sign of the City of Milan, Golden Scales Street, Cologne.'

"Yours very truly,

"JAMES R. CHADWICK, M.D."

—*Boston Medical and Surgical Journal.*

CELEBRATION OF ROKITANSKY'S BIRTHDAY.—The seventieth anniversary of the birthday of this distinguished pathologist was celebrated with appropriate ceremonies in Vienna on the 19th of February of this year. Delegations from all parts of the Austrian Empire, and also from many foreign lands, were present and took part in the festivities, and good wishes were sent by post and telegraph from numerous societies and eminent individuals who were unable to be personally represented. Long before the time appointed for the exercises to begin, the hall appropriated to the purpose was crowded by men whose names are of world-wide renown in science and literature, and who hastened to do homage to the distinguished professor. Prof. Langee delivered an oration, narrating the various services which Rokitansky has rendered towards the advancement of science, and, at the close of his address, unveiled a bust which his pupils had had made as a testimony of their earnest wish to hand down to posterity the features of one whom they so heartily revered. Numerous other addresses were made, and forty deputations presented their congratulations. In the evening there was a torch-light procession by the students of the various faculties of the University, from the Parliament House to the "Kursalon" in the "Stadt-park," where they were received by Rokitansky. Forming a circle around the building, they sang the "Gaudeamus," then resumed their march and extinguished their torches, and the birthday celebration was over.

NEVADA SODA.—A small lake in Churchill County, Nevada, covering an area of seven acres, is a perfect well of carbonate of soda in its almost pure state. Twenty thousand tons a year can be obtained from it. It is pronounced by chemists equal to the European soda.—*Druggist's Circular.*

THE Jardin d'Acclimatation at Paris recently received a medusa polyp, which on the day after its entry into the pool assigned to it had created a void around it and skilfully got rid of all its neighbors. This was a mystery until the water of the pool was analyzed: the water was found to be converted into a solution of vinegar, and it was apparent that it was one of those very rare molluscs, the vinegar polyp, whose body when plunged into pure water gives presently a strongly characterized acetic solution. The working of this animal is very curious; it produces alcohol, which it transforms into vinegar. The poisonous mollusc was, of course, quickly withdrawn, and placed in clarified vinegar in a closed jar, where it will pursue undisturbed the economical manufacture of the acid.

CAUTION TO DRUGGISTS.—A mixture of chromic acid and glycerin is a formula which has recently been highly recommended in certain affections of the mouth, scrofula, etc. Dr. Mascarel takes occasion to warn druggists that when these two substances are vigorously rubbed up together the result is a lively *explosion*, an accident which can be averted by adding the glycerin drop by drop, and grinding slowly.—*Il Raccoglitore Medico*, No. xxxi., 1873.—*Boston Medical and Surgical Journal.*

DR. BALLE presented the other day to the Faculté de Médecine a young girl aged fourteen, named Blanche Dumas, from Issoudun, whose body, from the waist downwards, is double,—the two parts acting independently of each other. The two legs she uses for walking belong each to a different trunk, while a third one is quite insensible to pain. Her health is good.—*London Lancet.*

AFTER a prolonged debate, the Obstetrical Society of London have decided, by an overwhelming vote, that their by-laws did not allow of the admission of women as members. This interpretation of the by-laws seems to have resulted from the feeling expressed by several speakers that the admission of women would be ruinous to the Society.

THE death of Dr. Ernst Bock, pathologist to the General Hospital at Munich, in the 65th year of his age, is announced. He was the author of several works upon simple and pathological anatomy, but is specially known in Germany by his "Buch vom gesunden und kranken Menschen," and numerous other popular writings.

THE *Chicago Post and Mail* gives the following as the immediate cost of a first-class baby: physician, $50; midwife, $25; wet-nurse, $50; dry-nurse (one year), $150; clothing, $200; baby-carriage, $25; total, $500. —*The Clinic.*

THE *London Lancet* deems the introduction of Pullman palace cars into England of sufficient importance to receive an editorial notice.

THE Worcester *Press* thinks that an *Eng* raving would most appropriately represent the scene of Chang's death.

THERE was a certain Pope who lost his physician, and to all who applied for the office he put the question, "How many have you killed?" Each doctor in turn solemnly asseverated that he had never killed any one. An old fellow, with a big beard, came at last. "How many have you killed?" asked the Pope. "*Tot quot*," said the old fellow, pulling his beard with both hands. The Pope was pleased with the confession, and, believing that he must at least be a man with an enormous experience, took him as his physician.

USE OF GLAZIER'S PUTTY IN SURGERY.—Ordinary mixed putty has been found by Mr. Courvall to be the softest and most applicable means of treating excrescences or tumors of various kinds where compression is desired, as it moulds itself so neatly to the skin. He believes it to be superior to dextrine, silicate of soda, or plaster bandages. It is a cheap and always attainable material.—*The Medical Press and Circular.*

THE motto for the successful essay for the Merrit cash prize, awarded by the New York State Medical Association, probably had more of truth than poetry in it. It was "Die Hoffnung eines armen bedürftigen Teufel,"—The hope of a poor needy devil.

PROF. ROKITANSKY is stated to have four sons, two of them—Karl and Prokop—rising young physicians and "Universitäts-docenten," one, Hans, a basso of the Imperial Opera at Vienna, and Victor a teacher of vocal music.

DR. WILSON FOX has been appointed Physician-in-Ordinary to their Royal Highnesses the Duke and Duchess of Edinburgh, the much-talked-of bridal pair. —*Boston Medical and Surgical Journal.*

THE London Dental Hospital has recently occupied its new building, and seems to be entering upon a career of renewed usefulness.

NOTES AND QUERIES.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

SIR,—Allow me a short space in your journal in reply to Messrs. X and Ex.

X may be dismissed in a very few words. Unable to cope with the *matter* of my communication, he has attacked the *manner*. His elegant Lord Dundrearyship's nostrils seem to be much disgusted at my want of "suave manners and courtly language," and he very consistently makes the asinine assertion that, if the dispensary-doctors do serve for nothing, it is for nothing "*save for self-interest.*"

In marked contrast are the courtesy and convincing arguments of Ex. I did not mean to assert that hospitals and such-like institutions were destined to crush not only the struggling practitioner but to embarrass the whole medical profession, but intended to denounce their indiscriminate advice and their services to any who may demand them without question. Surely there are enough *deserving* poor in such a large city from whom to gain experience (for self-interest), without taking in those "of low degree" who may be able to pay but desire to shirk an honorable responsibility.

I cheerfully accord the high ability and great services of hospital-doctors, but am not on that account willing to allow them privileges no accorded to the humblest member of the profession. I readily assent to the usefulness and great charity of the institutions themselves when properly administered, but not that they shall be vehicles for the advancement of a few for their own selfish interests, and thus prove themselves like the fabled dog in the manger, allowing no one else to be partaker of the feast.

VERTEX.